

WHAT IS CLAIMED IS:

1 A method for producing a consolidated cellulosic article, comprising  
2 the steps of:

3 providing a mat of cellulosic material and binder resin;

4 providing a first contoured front platen having a first pattern;

5 providing a first contoured rear platen having a pattern generally  
6 corresponding to the first pattern of the front platen;

7 consolidating the mat between the first contoured front platen and the  
8 first contoured rear platen under heat and pressure to form a molded softboard having  
9 a contoured front surface and a correspondingly contoured rear surface, the softboard  
10 having a substantially uniform density and substantially uniform caliper;

11 removing portions of the molded softboard up to a predetermined  
12 removal plane to form a softboard having a front surface and rear surface with desired  
13 contours;

14 providing a second contoured front platen having a contour  
15 substantially corresponding to the contour of the front surface;

16 providing a second contoured rear platen having a contour substantially  
17 corresponding to the contour of the rear surface; and

18 consolidating the softboard between the second contoured front platen  
and the second contoured rear platen, under heat and pressure.

19 2. The method of claim 1, wherein after the first consolidating step, the  
2 mat has a density of approximately ten to approximately thirty pounds per cubic foot.

2 3. The method of claim 1, wherein the removing step is performed using  
a saw.

4. The method of claim 1, wherein the saw is a rotary scalper.

5. The method of claim 1, wherein the saw is a band saw.

2 6. The method of claim 1, further including the steps of gathering  
cellulosic material removed from the mat after the first consolidating step and reusing  
the cellulosic material in subsequent iterations of the method.

2 7. The method of claim 1, further including the step of injecting steam  
into the mat during the at least one of the first and second consolidating steps.

2 8. The method of claim 1, wherein the removal step results in at least one  
planar top or bottom surface and wherein the second consolidating step is performed  
using a flat platen.

2 9. A method of producing a consolidated cellulosic article, comprising  
the steps of:

4 compressing a mat of cellulosic material and a binder resin between  
first and second contoured platens to produce a softboard having first and second,  
opposed, contoured sides;

6 removing cellulosic material from the softboard along one of the first  
or second sides in a planar fashion; and

8 subsequently compressing the mat between third and fourth platens, the  
third platen being contoured in a manner similar to the first side of the softboard, the  
10 fourth platen being contoured in a manner similar to the second side of the softboard.

10 10. The method of claim 9, wherein the first and second platens are  
2 similarly contoured.

11. The method of claim 9, wherein the compressing steps are performed  
2 under heat and pressure.

2 12. The method of claim 11, wherein the pressure is in the range of about  
five pounds per square inch to about one thousand pounds per square inch.

2 13. The method of claim 9, wherein the removing step is performed using  
a rotary scalper.

2 14. The method of claim 9, wherein the removing step is performed using  
a band saw.

2 15. The method of claim 9, further including the steps of gathering the  
removed cellulosic material and reusing the removed cellulosic material.

2 16. The method of claim 9, further including the step of injecting steam  
into the mat during the compression step.

2 17. A consolidated cellulosic article constructed in accordance with the  
method of claim 9.

2 18. The method of claim 9, wherein the removing step results in a  
softboard having at least one flat side, and wherein at least one of the third and fourth  
platens is planar.

19. A system for producing a consolidated cellulosic article, comprising:  
a primary press having first and second platens and a drive, the first  
and second platens having opposed, complementarily contoured, die surfaces, the  
drive being adapted to compress the first and second platens toward one another;  
a removal tool, the tool including a blade for removal of cellulosic  
material in a planar fashion; and  
a secondary press having first and second platens and a drive, the first  
and second platens having opposed die surfaces, the drive being adapted to compress  
the first and second platens toward one another.

20. The system of claim 19, wherein the removal tool is a rotary scalper.

21. The system of claim 19, wherein the removal tool is a band saw.

22. The system of claim 19, wherein the at least one of the primary and  
secondary presses includes a steam injector adapted to inject steam between the first  
and second platens.

23. The system of claim 19, wherein at least one of the primary and  
secondary presses include heating apparatus.

24. The system of claim 19, further including collection apparatus for  
collecting cellulosic material removed by the removal tool.

25. The system of claim 19, wherein at least one of the first and second

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platens of the secondary press is flat.

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